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LETTER OF TRANSMITTAL

CF

Attn:	St. Louis, 1 Art Currier	owne Square MO 63132		Date: July 20, 2001 Project: Sauget Area 1 Landfill Project # Subject: Geosynthetics Pre-Construction Meeting Minutes
KA	SI	: Attached the following: nop Drawing(s) atter(s) ample(s)	Contract D	on Drawing(s)Change Order(s)
	Quant	Date	ID No.	Description
	1	7/20/01	G	deosynthetics Pre-Construction Meeting Minutes
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		If iten	ns are not receive	ed as listed, please notify us immediately.
	For Approved	oval D	For Your Use Approved As N	As Requested For Fabrication Rejected Revise & Resubmit
Kem	arks:			
Please find enclosed the Geosynthetics Pre-Construction Meeting Minutes,				
cc:			From	m: John Flore
-			3.30	Maverick Construction Management Services, Inc.
				15 Cedar Street
File:				Auburn, MA 01501 TEL: 508-721-2227
	٥٥			FAX: 508-721-2229

Solutia - Sauget Area 1 Cell Construction

<u>Date and Time</u>: 7/18/01, 1:00 pm <u>Location</u>: Maverick Site Trailer

Attendance: John Fiore, Maverick (Construction Manager)

Kevin Turner, USEPA

Rob Watson, IEPA via conference call Sandy Braun, IEPA via conference call

Richard Siemaszkiewicz, Golder (CQA Consultant)

Don Grahlherr, URS (Designer)

Lee Taylor, Taylor (Geosynthetics Installer)

Jack Long, LMS (Contractor)
Terry Woodfin, LMS (Contractor)

Walt Stell, Environmental Precision (Surveyor)

Art Currier, Tetra Tech (EPA Oversight)
Melissa Daumen, Patriot (QC - Soils)

Les Dunn, Patriot (QC – Soils and Geosynthetics)

Discussion Notes:

- The meeting agenda (attached) was generally followed.
- Don Grahlherr assigned to be minute taker.
- Individuals introduced themselves and their function on the project.
- Project documents have been previously distributed to all parties in attendance.
 The geosynthetics panel layout has been received from Taylor, approved and distributed note that it may have to be modified as actual conditions are encountered which is typical.
- Golder will submit a daily field report to Maverick. Patriot will submit a daily field report to Golder. Golder and URS will review and submit to Maverick.
- A weekly progress meeting will be held each Wednesday at 10:00 am at the Maverick Site Trailer. All present were invited to attend.
- Design clarification and changes during construction will be made as previously
 done by LMS. The protocol involves use of a standard Request for Information
 (RFI) form submitted to Maverick. Maverick will forward to parties of concern.
 In the event that a Design Change is required, USEPA and IEPA will be
 informed.

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- Site tour was not taken due to current rainfall. All present at meeting have recently toured the site. Site is nearly prepared for geosynthetics installation (couple more days work).
- Rob Watson will visit the site during placement of GCL and requested to be notified 2 days in advance. Contractors estimate "best case" schedule will be 7/25/01, but will likely be a few days after that due to weather.
- John Fiore stated that safety would start at the loading and handling of material rolls at the storage area. Note that there will be safety concerns due to narrow (10 ft) berm crests on the North, East and West berms. Taylor indicated that they would do most deployment of materials from the South berm where the crest width has been widened to 25 ft. Taylor indicated that they will be primarily using the spreader bar method of deployment to minimize use of the stinger bar.
- Taylor's deployment crew will have about 10 laborers from the local Labor Hall.
 All workers will be 40-hr trained. Taylor will brief the workers on the proper procedures of liner deployment and working on and around these materials. A daily tailgate safety meeting will be held to discuss safety concerns and each day's activities.
- Maverick's Health and Safety Officer will meet with new employees and provide site-specific guidelines, rules, etc.
- Taylor foresees a 9.5 hr/day, 6-days/wk-work schedule. Estimated total time to install geosynthetics is 4 to 5 weeks.
- Richard Siemaszkiewicz stated that all geosynthetic materials are on site and conformance testing is completed. Any partially used rolls (especially GCL) will be protected against the elements.
- John Fiore indicated that Maverick will share site facilities but requested that
 LMS provide one more portable toilet near the cell area with a hand-washing unit.
- Richard Siemaszkiewicz noted that all GCL placed daily will be covered by the Secondary liner and overlapped at least two feet on that day.
- Richard Siemaszkiewicz and John Fiore expressed concern of operation of D-6
 LGP dozer on 6-inch soil layer over geotextile. Specifically, tight turning should
 not be allowed. John noted that the grouser height on that machine is in excess of
 4 inches, therefore has the potential to penetrate the 6-inch tracked in soil. Terry
 indicated that they would be using pushing a 9-inch loose lift with this dozer.
 Richard Siemaszkiewicz indicated that QC and QA would continuously observe
 this operation.

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- Walt Stell indicated that he would be on site full time throughout geosynthetic
 installation. John Fiore indicated that he will require prepared plan for subgrade
 approval and will expect appropriate QC documentation for the surveying before
 any liner placement.
- Richard Siemaszkiewicz indicated that no equipment would be allowed to traffic
 on the liner surface. Rub sheets will be required beneath all equipment placed on
 the liner. Lee Taylor stated that all of their generators are rubber-tired.
- John Fiore stated that it is a requirement that a pump be installed and operated to
 maintain the water level in the capillary layer below or within the capillary break
 layer. Standing water on or under the liner is unacceptable. A surface pump will
 also be required to handle water falling on the liner during installation. LMS and
 Taylor will coordinate this effort.
- Melissa Daumen stated that she will be QC for the 6" tracked in soil and will likely be QC for the 12" tracked in soil as well. Les Dunn will be QC for the geosynthetics installation and possibly the 12" soil layer. John Fiore asked if Les had experience in soil QC Les stated that he had over 16 yrs experience.
- Richard Siemaszkiewicz discussed geosynthetics QA as follows:
 - a) Golder will use yellow Meanstreak markers and Taylor will use a white marking system for identifying information on the liner;
 - b) Taylor will be responsible for maintaining identification on each roll of geomembrane. Every panel deployed will require proper roll identification, traceable back to the resin lot;
 - c) Taylor will write, with a permanent marker, all pertinent information on trial seams, repairs, seam tests and at the start of seam, prior to seaming (i.e. workers initials, date, time, machine number, speed, temperature, and test results);
 - d) Taylor and Golder will maintain the same panel, seam, defect, repair and sample designations as assigned in the field by Golder;
 - e) Taylor should remove destructive samples on a daily basis to provide approved areas for placement of additional components as directed by Golder;
 - f) LMS will construct diversion berms and silt fences as needed to protect construction in the cell;
 - g) LMS will be responsible for siltation prior to placement of the geomembrane, and to ensure the subgrade is maintained or restored to the approved condition if damaged; and
 - h) Following the placement of the geomembrane, LMS and Taylor will coordinate siltation clean-up activities and de-watering activities in the

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most efficient and expeditious manner, therefore, communication is of the utmost importance.

- Rob Watson indicated his concern with wrinkles on the secondary liner above the GCL (intimate contact issue). Lee Taylor, John Fiore, Richard Siemaszkiewicz, Don Grahlherr, and Jack Long agreed that the best way to limit the effects of wrinkles is to "trap" them as many small wrinkles rather than a few larges wrinkles. Trapping by "rolling" soil over the liner rather than pushing. Jack also indicated that laborer's may stand on the wrinkles as soil is placed to evenly distribute them. On slopes, Richard Siemaszkiewicz indicated (and Lee Taylor agreed) that to reduce large wrinkles at the toe, sandbags would be placed at the toe and the liner must be adequately anchored at the trench location during construction.
- Rob Watson asked if a double layer of GCl would be installed in the sump area. Richard Siemaszkiewicz indicated that the specifications state that an extra layer will be installed in the sump bottom.
- John Fiore indicated that Taylor needed to submit 40-hour training documents for his workers. Richard Siemaszkiewicz added that if personnel changed, resumes would be required.
- Rob Watson asked if the additional internal shear strength testing is being
 performed. Richard Siemaszkiewicz stated that it is underway and results should
 be available by Monday 7/23/01. The results will be forwarded to Gary Wantland
 of URS for review. After his review, Maverick will distribute the results to IEPA.
- The first Weekly Progress Meeting will be held Wednesday 7/25/01 at 10:00 am at the Maverick Site Trailer.
- With no further discussion requested, the meeting was ended at approximately
 2:30 pm.
- c.c. All in attendance.

 Mike Light (Solutia).

 Bruce Yare (Solutia).

 Gary Wantland (URS).

 Mark Sandfort (Golder).

EXHIBIT 1-2

PRE-CONSTRUCTION MEETING AGENDA

SAUGET AREA 1 SOLUTIA INC. CAHOKIA, ILLINOIS

- 1. Introductions
 - A. Assign Minute Taker
 - B. Identify Parties
 - 1. Construction Manager
 - 2. Construction Contractor
 - 3. Geosynthetic Construction Quality Assurance Consultant
 - 4. Installer
 - 5. Designer
 - 6. Solutia Representative
- 2. Distribution of Documents
- - A. Construction Plans and Specifications
 - B. Geosynthetic Panel Layout
 - C. Geosynthetic Construction Quality Assurance Manual
- 3. Lines of Communication
 - A. Reporting Methods
 - B. Progress Meetings
 - C. Procedures for Approving Design Clarifications and Changes During Construction
- 4. Tour Project Site
- 5. Site Requirements
 - A. Safety Rules
 - B. Site Rules
 - C. Work Schedule
 - D. Storage of Materials
 - E. Available Facilities

EXHIBIT 1-2

PRE-CONSTRUCTION MEETING AGENDA

SAUGET AREA 1 SOLUTIA INC. CAHOKIA, ILLINOIS (Continued)

- 6. Construction Issues
 - A. Scope of Work
 - B. Review Plans and Specifications
 - 1. Design and Construction Requirements
 - 2. Geosynthetic Panel Layout
 - C. Review Construction Procedures
 - 1. Proposed Construction Sequencing
 - 2. Equipment
 - D. Review Construction Schedule
 - E. Review Procedures for Preparing and Approving Change Orders
- 7. Discuss Construction Quality Assurance Plan
 - A. Soils
 - B. Geosynthetics
 - C. Structural Systems (e.g., risers, piping, etc.)
- 8. Project Deliverables
 - A. Responsibilities
 - 1. Construction Manager
 - 2. Designer
 - 3. Installer
 - 4. Geosynthetic Construction Quality Assurance Consultant
 - B. Distribution of Deliverables
 - C. Approval Procedures